

DART AEROSPACE LTD	Work Order:	15910
Description: Crosstube Extrusion (407 aft)	Part Number:	D6011-115
Drawing: D6011 Rev. A	Qty:	89

Step	Location	Procedure	By	Date	qty
1	EXPEDITING	Open W/O	(SM)	01.12.11	8
2	PURCHASING	Issue P/O: <u>2004012</u> a) Order as per Dwg D6011 b) Material: 2.750 x 0.650 wall 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) seamless alum tube c) Minimum ultimate tensile strength =77 ksi d) Minimum tensile yield strength = 66 ksi e) Tolerance are per ASTM B210 (see details on Dwg D6011) f) Material certification required	LL	01-12-12	8
3	RECEIVING	Receive and Inspect for transit damage Ensure Material certification is attached	PL	02/01/12	10
15	QC	Inspect Level 6 Ensure Material certification comply to Dwg	PL	02.07.05	9
84	FINISHING	Chemical conversion coat as per QSI 005 4.1	SQ	02-06-13	9
6	STORES	Identify and Stock	PL	02.07.05	9
7	EXPEDITING	Close W/O Cost / part <u>1048.85</u> <u>01/07/08</u> (9) <u>1048.85</u>	(SM)	02/07/08	

Rev	Date	Change	Revised By	Approved
A	01.08.17	New Issue	SM	

RELEASED

01.08.17

500 lbs = 8 pc's

WGT 50 lb.

BAD



Work Order:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Manuf / Design Mgr	Approval QC Inspector

NCR		WORK ORDER NON-CONFORMANCE							
DATE	STEP	Description of NC section A	Corrective Action Section B			Sign & Date	Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial						

PAR#: _____ Fault Category: _____ DQA: _____ Date: _____

NOTE: Date & initial all entries
H:Admin-QA\ISO\forms\w\oncB.doc

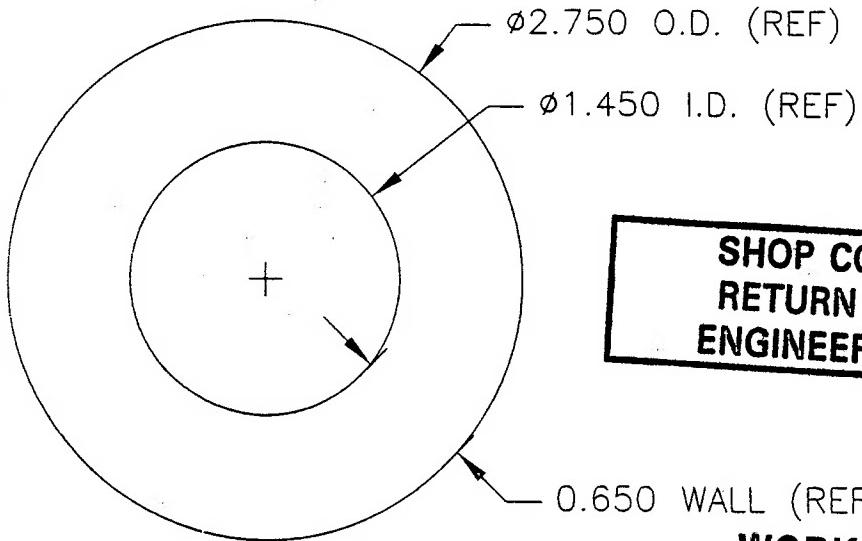
QA: N/C Closed: _____ Date: _____



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6011	REV. A SHEET 1 OF 1
DATE 01.08.16		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	01.08.16	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.08.17 *[Signature]*



NOTES

1) D6011-XXX CROSSTUBE

LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 115" LONG TUBE: D6011-115

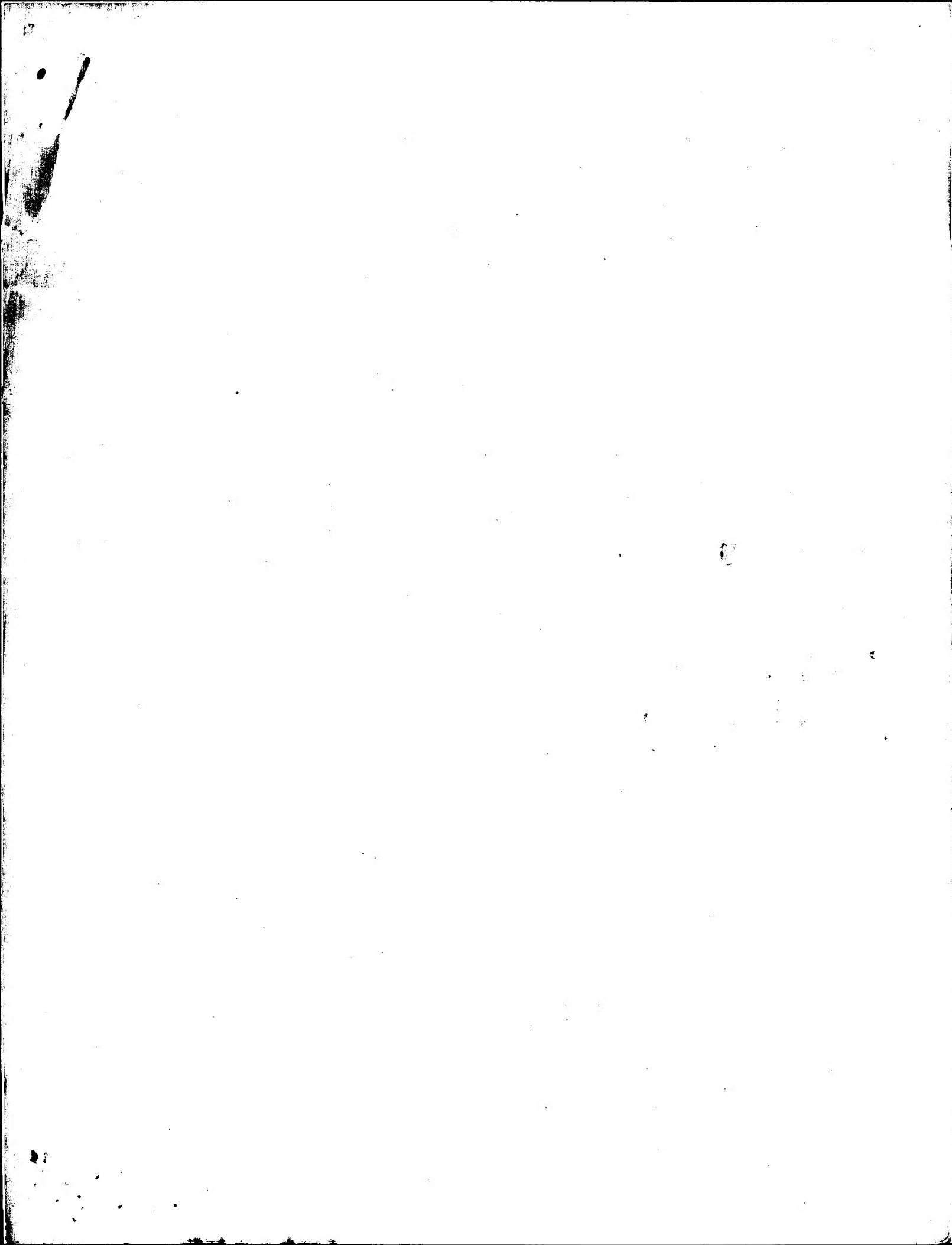
WORK ORDER
NO. 15990

CONTROLLED COPY

- 2) MATERIAL: 2.750 OD x 0.650 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.065 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England
Telephone (01527) 484500, Facsimile (01527) 484501



Approved Certificate

BSEN ISO 9002 Registration No. FM 10669
CAA Approved Reference No. DMAA 1218
BAe Approval No. BAE/AG/30275/MAA

Customer Copy No. 94865/1

Customer

DART AEROSPACE LIMITED
1270 ABERDEEN STREET
HAWKESBURY
ONTARIO
CANADA
K6A 1K7

Your Order No : 2094012
Our Order No : 81502/3
Packing Note No : 94271
Date : 27 Mar 2002
Packages : 1 CASE

Other Tests Passed

Size / Description

SEAMLESS EXT TUBE 69.850MM O/D 16.510MM W/T 7075 Alloy
Length - 3286.00 mm

Specification
7075 T6
QQ-A-200/11E

No of Pieces	Nett Weight Lbs	Insp. Stamp R.A.R.	Tensile Test					Chemical Analysis %										H cc/ 100gm	
			Lot or Test No.	0.2% Proof Stress KSI	Tensile Strength KSI	% Elongation 4 x Dia		Cast No.	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn			
10	571	19	219315	74.1	90.21	11		2G338	.10	.30	1.40	.08	2.30	.19		5.59			.03 .13

Remarks

DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUINALLY
CASE NO. B6125

Certified that the whole of the supplies detailed
hereon have been inspected, tested and unless
otherwise stated, conform in all respects
with the requirements of the contract or order.
The quality control adopted in respect of these
supplies are in accordance with the conditions
of our BSEN ISO 9002 registration.

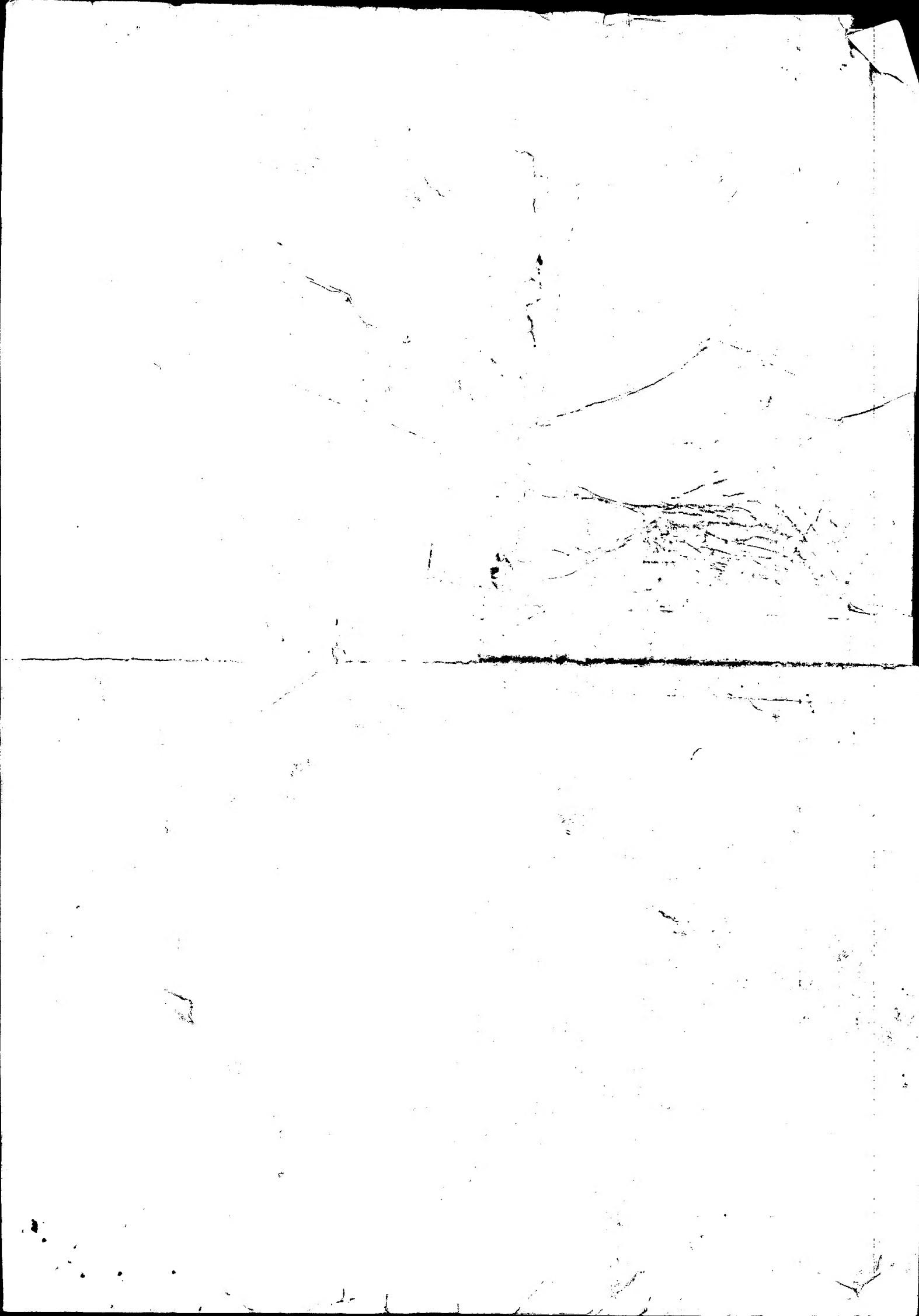
For and on behalf of BA Tubes Limited

Certified that, unless otherwise stated above
the whole of the above-mentioned materials have
been manufactured, tested and inspected in
accordance with the terms of the contract order
acceptable thereto and conform fully to the
standard/specifications quoted hereon and the
requirements of the Civil Aviation Authority

For and on behalf of BA Tubes Limited

Registered in England No. 3981395
Registered Office: The Victoria, Harbour City, Salford Quays, Manchester M5 2SP, England.
T Registration No. GB 668 2142 26

(THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204.3.1B)



DART AEROSPACE LTD	Work Order:	18980
Description: Removal per NCR 656	Part Number:	D6010-115 (7) D6011-115 (1)
Dwg:	Qty:	D6007-106 (1)

Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller			
2	FINISHING	REMOVE THE FOLLOWING PARTS FROM QUARANTINE: (7) D6010 - 115 B15989* (1) D6011 - 115 B15990* (1) D6007 - 106 B15998*	BB	03.03.31	9
3					
4		*NOTE: PARTS WILL BE ASSIGNED A NEW B/N. PLEASE REFER TO THESE B/N FOR RECEIPT OF ORDER AND MATERIAL CERTIFICATION.			
5					
6					
7	FINISHING	ACID ETCH + TRUADINE INSIDE & OUTSIDE PER QSI OOS 4.1	JM	03.04.01	9
8	FINISHING	IDENTIFY WITH PIN & NEW B/N & STOCK ATTACH NCR 656 TAB WHICH SAYS THE FOLLOWING: " SEE NCR 656.	BB	03.04.01	9
9					
10		ULTRASONIC INSPECT AFTER TRUADINE. TALK TO DAVID SHEPHERD BEFORE			
11		MACHINING			
12	AC	COST/PART 12Y.25 ADJUST INVENTORY AS REQUIRED	SAC	03.04.11	—
13		■■■■■			
14	DC	CLOSE w/o INSPECT LEVEL 2i	AB	03.04.11	—
15					
16					
17					
18					
19					
20					

Rev	Date	Change	Revised By	Approved
A		New issue	BB	03.03.28

Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Dec 10, 2001
07:39 am

Work Order No : 0015990
 Project Name : D6011-115
 Project For : WK15
 Work Order Type : Main
 Main WO Number :
 House Part Number : D6011-115
 Description : Crosstube Material
 Manufactured : Yes
 Amount Req'd : 8
 Amount Done : 0
 Start Date :
 Est Finish Date : 04-05-02
 Act Finish Date :
 Drawings Reqd : No
 Ok for Approval :
 Approval Rec'd :

Department Code:
 Burden Flags : NNNNNNN
 WO Status : Open
 Invoice State : Not Invoiced
 Invoice Date :
 Invoice Number :
 Invoice Amount : 0.00
 Order Entry No :
 OE Value : 0.00
 Est Margin : 0.000%
 Actual Margin : 0.000%
 \$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Margin :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/ (Loss) :	0.00	0.00